

## SEQUENCE LISTING

&lt;110&gt; AVENTIS PHARMA SA

US GOVERNMENT of the UNITED STATES

<120> NUCLEIC ACID OF THE HUMAN ABCC11 GENE, VECTORS  
CONTAINING SUCH NUCLEIC ACID, AND USES THEREOF

&lt;130&gt; ABCC11 GENE

&lt;140&gt; ST01005

&lt;141&gt; 2002-03-05

&lt;150&gt; 60/272,757

&lt;151&gt; 2001-03-05

&lt;160&gt; 31

&lt;170&gt; PatentIn Ver. 2.1

&lt;210&gt; 1

&lt;211&gt; 4862

&lt;212&gt; DNA

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			340					345					350			
Lys	Met	Tyr	Thr	Trp	Glu	Lys	Pro	Phe	Ala	Lys	Ile	Ile	Glu	Asp	Leu	
		355					360					365				
Arg	Arg	Lys	Glu	Arg	Lys	Leu	Leu	Glu	Lys	Cys	Gly	Leu	Val	Gln	Ser	
	370					375					380					
Leu	Thr	Ser	Ile	Thr	Leu	Phe	Ile	Ile	Pro	Thr	Val	Ala	Thr	Ala	Val	
385					390					395					400	
Trp	Val	Leu	Ile	His	Thr	Ser	Leu	Lys	Leu	Lys	Leu	Thr	Ala	Ser	Met	
				405					410					415		
Ala	Phe	Ser	Met	Leu	Ala	Ser	Leu	Asn	Leu	Leu	Arg	Leu	Ser	Val	Phe	
			420					425					430			
Phe	Val	Pro	Ile	Ala	Val	Lys	Gly	Leu	Thr	Asn	Ser	Lys	Ser	Ala	Val	
		435					440					445				
Met	Arg	Phe	Lys	Lys	Phe	Phe	Leu	Gln	Glu	Ser	Pro	Val	Phe	Tyr	Val	
	450					455					460					
Gln	Thr	Leu	Gln	Asp	Pro	Ser	Lys	Ala	Leu	Val	Phe	Glu	Glu	Ala	Thr	
465					470					475					480	
Leu	Ser	Trp	Gln	Gln	Thr	Cys	Pro	Gly	Ile	Val	Asn	Gly	Ala	Leu	Glu	
				485					490					495		
Leu	Glu	Arg	Asn	Gly	His	Ala	Ser	Glu	Gly	Met	Thr	Arg	Pro	Arg	Asp	
			500					505					510			
Ala	Leu	Gly	Pro	Glu	Glu	Glu	Gly	Asn	Ser	Leu	Gly	Pro	Glu	Leu	His	
		515					520					525				
Lys	Ile	Asn	Leu	Val	Val	Ser	Lys	Gly	Met	Met	Leu	Gly	Val	Cys	Gly	
	530					535					540					
Asn	Thr	Gly	Ser	Gly	Lys	Ser	Ser	Leu	Leu	Ser	Ala	Ile	Leu	Glu	Glu	
545					550					555					560	

Met His Leu Leu Glu Gly Ser Val Gly Val Gln Gly Ser Leu Ala Tyr  
 565 570 575  
 Val Pro Gln Gln Ala Trp Ile Val Ser Gly Asn Ile Arg Glu Asn Ile  
 580 585 590  
 Leu Met Gly Gly Ala Tyr Asp Lys Ala Arg Tyr Leu Gln Val Leu His  
 595 600 605  
 Cys Cys Ser Leu Asn Arg Asp Leu Glu Leu Leu Pro Phe Gly Asp Met  
 610 615 620  
 Thr Glu Ile Gly Glu Arg Gly Leu Asn Leu Ser Gly Gly Gln Lys Gln  
 625 630 635 640  
 Arg Ile Ser Leu Ala Arg Ala Val Tyr Ser Asp Arg Gln Ile Tyr Leu  
 645 650 655  
 Leu Asp Asp Pro Leu Ser Ala Val Asp Ala His Val Gly Lys His Ile  
 660 665 670  
 Phe Glu Glu Cys Ile Lys Lys Thr Leu Arg Gly Lys Thr Val Val Leu  
 675 680 685  
 Val Thr His Gln Leu Gln Tyr Leu Glu Phe Cys Gly Gln Ile Ile Leu  
 690 695 700  
 Leu Glu Asn Gly Lys Ile Cys Glu Asn Gly Thr His Ser Glu Leu Met  
 705 710 715 720  
 Gln Lys Lys Gly Lys Tyr Ala Gln Leu Ile Gln Lys Met His Lys Glu  
 725 730 735  
 Ala Thr Ser Asp Met Leu Gln Asp Thr Ala Lys Ile Ala Glu Lys Pro  
 740 745 750  
 Lys Val Glu Ser Gln Ala Leu Ala Thr Ser Leu Glu Glu Ser Leu Asn  
 755 760 765  
 Gly Asn Ala Val Pro Glu His Gln Leu Thr Gln Glu Glu Met Glu  
 770 775 780  
 Glu Gly Ser Leu Ser Trp Arg Val Tyr His His Tyr Ile Gln Ala Ala  
 785 790 795 800  
 Gly Gly Tyr Met Val Ser Cys Ile Ile Phe Phe Phe Val Val Leu Ile  
 805 810 815  
 Val Phe Leu Thr Ile Phe Ser Phe Trp Trp Leu Ser Tyr Trp Leu Glu  
 820 825 830  
 Gln Gly Ser Gly Thr Asn Ser Ser Arg Glu Ser Asn Gly Thr Met Ala  
 835 840 845  
 Asp Leu Gly Asn Ile Ala Asp Asn Pro Gln Leu Ser Phe Tyr Gln Leu  
 850 855 860  
 Val Tyr Gly Leu Asn Ala Leu Leu Leu Ile Cys Val Gly Val Cys Ser  
 865 870 875 880  
 Ser Gly Ile Phe Thr Lys Val Thr Arg Lys Ala Ser Thr Ala Leu His

885										890										895										
Asn	Lys	Leu	Phe	Asn	Lys	Val	Phe	Arg	Cys	Pro	Met	Ser	Phe	Phe	Asp															
			900						905						910															
Thr	Ile	Pro	Ile	Gly	Arg	Leu	Leu	Asn	Cys	Phe	Ala	Gly	Asp	Leu	Glu															
		915					920						925																	
Gln	Leu	Asp	Gln	Leu	Leu	Pro	Ile	Phe	Ser	Glu	Gln	Phe	Leu	Val	Leu															
		930				935						940																		
Ser	Leu	Met	Val	Ile	Ala	Val	Leu	Leu	Ile	Val	Ser	Val	Leu	Ser	Pro															
		945			950					955					960															
Tyr	Ile	Leu	Leu	Met	Gly	Ala	Ile	Ile	Met	Val	Ile	Cys	Phe	Ile	Tyr															
				965					970					975																
Tyr	Met	Met	Phe	Lys	Lys	Ala	Ile	Gly	Val	Phe	Lys	Arg	Leu	Glu	Asn															
			980					985					990																	
Tyr	Ser	Arg	Ser	Pro	Leu	Phe	Ser	His	Ile	Leu	Asn	Ser	Leu	Gln	Gly															
		995				1000						1005																		
Leu	Ser	Ser	Ile	His	Val	Tyr	Gly	Lys	Thr	Glu	Asp	Phe	Ile	Ser	Gln															
		1010				1015					1020																			
Phe	Lys	Arg	Leu	Thr	Asp	Ala	Gln	Asn	Asn	Tyr	Leu	Leu	Leu	Phe	Leu															
		1025			1030					1035				1040																
Ser	Ser	Thr	Arg	Trp	Met	Ala	Leu	Arg	Leu	Glu	Ile	Met	Thr	Asn	Leu															
			1045					1050					1055																	
Val	Thr	Leu	Ala	Val	Ala	Leu	Phe	Val	Ala	Phe	Gly	Ile	Ser	Ser	Thr															
		1060						1065					1070																	
Pro	Tyr	Ser	Phe	Lys	Val	Met	Ala	Val	Asn	Ile	Val	Leu	Gln	Leu	Ala															
		1075				1080						1085																		
Ser	Ser	Phe	Gln	Ala	Thr	Ala	Arg	Ile	Gly	Leu	Glu	Thr	Glu	Ala	Gln															
		1090				1095					1100																			
Phe	Thr	Ala	Val	Glu	Arg	Ile	Leu	Gln	Tyr	Met	Lys	Met	Cys	Val	Ser															
		1105			1110				1115				1120																	
Glu	Ala	Pro	Leu	His	Met	Glu	Gly	Thr	Ser	Cys	Pro	Gln	Gly	Trp	Pro															
			1125					1130					1135																	
Gln	His	Gly	Glu	Ile	Ile	Phe	Gln	Asp	Tyr	His	Met	Lys	Tyr	Arg	Asp															
		1140					1145					1150																		
Asn	Thr	Pro	Thr	Val	Leu	His	Gly	Ile	Asn	Leu	Thr	Ile	Arg	Gly	His															
		1155				1160						1165																		
Glu	Val	Val	Gly	Ile	Val	Gly	Arg	Thr	Gly	Ser	Gly	Lys	Ser	Ser	Leu															
		1170				1175					1180																			
Gly	Met	Ala	Leu	Phe	Arg	Leu	Val	Glu	Pro	Met	Ala	Gly	Arg	Ile	Leu															
		1185			1190				1195					1200																
Ile	Asp	Gly	Val	Asp	Ile	Cys	Ser	Ile	Gly	Leu	Glu	Asp	Leu	Arg	Ser															
			1205					1210					1215																	

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Lys	Leu	Ser	Val	Ile	Pro	Gln	Asp	Pro	Val	Leu	Leu	Ser	Gly	Thr	Ile		
1220				1225								1230					
Arg	Phe	Asn	Leu	Asp	Pro	Phe	Asp	Arg	His	Thr	Asp	Gln	Gln	Ile	Trp		
1235				1240								1245					
Asp	Ala	Leu	Glu	Arg	Thr	Phe	Leu	Thr	Lys	Ala	Ile	Ser	Lys	Phe	Pro		
1250				1255								1260					
Lys	Lys	Leu	His	Thr	Asp	Val	Val	Glu	Asn	Gly	Gly	Asn	Phe	Ser	Val		
1265				1270								1275				1280	
Gly	Glu	Arg	Gln	Leu	Cys	Ile	Ala	Arg	Ala	Val	Leu	Arg	Asn	Ser			
1285				1290								1295					
Lys	Ile	Ile	Leu	Ile	Asp	Glu	Ala	Thr	Ala	Ser	Ile	Asp	Met	Glu	Thr		
1300				1305								1310					
Asp	Thr	Leu	Ile	Gln	Arg	Thr	Ile	Arg	Glu	Ala	Phe	Gln	Gly	Cys	Thr		
1315				1320								1325					
Val	Leu	Val	Ile	Ala	His	Arg	Val	Thr	Thr	Val	Leu	Asn	Cys	Asp	His		
1330				1335								1340					
Ile	Leu	Val	Met	Gly	Asn	Gly	Lys	Val	Val	Glu	Phe	Asp	Arg	Pro	Glu		
1345				1350								1355				1360	
Val	Leu	Arg	Lys	Lys	Pro	Gly	Ser	Leu	Phe	Ala	Ala	Leu	Met	Ala	Thr		
1365				1370								1375					
Ala	Thr	Ser	Ser	Leu	Arg												
1380																	